

A NEW *LEPIDOCHRYSOPS* HEDICKE
(LEP.: LYCAENIDAE) FROM THE SOUTH
WESTERN CAPE PROVINCE

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No. 60

This interesting blue *Lepidochrysops* was discovered by Dr. Jonathan B. Ball on the Kammanassie Mountains in the easterly portion of the South Western Cape Province, on 3rd February, 1979. Later specimens were found on the same mountains by Mr. V. L. Pringle on 12th December, 1981. Up to that time males only had been secured. It was not until 14th November, 1982, that Messrs. V. L. and E. L. Pringle found a female, as well as further males, on these mountains. The butterfly is most closely related to *Lepidochrysops braueri* Dickson (*Entomologist's Rec. J. Var.* 78 (9): 189-192, Pl. IX (1966)) and in the description which follows comparisons are made with this species.

Lepidochrysops balli spec. nov.

This insect is of moderate size for its genus, and of about the same size as *L. braueri*. The forewings of the male are a little, if noticeably, more "blunt" than in the latter taxon.

Male. (Upperside).

Ground-colour of all wings violaceous-blue and without the silvery tone which is characteristic of *L. braueri*. From specimens available for comparison, the broad, dark marginal bands are, *on an average*, slightly wider in *balli* than in *braueri*. From about two-thirds upwards, the marginal band becomes comparatively sharply curved along its inner edge, *in the hindwing*, owing to the band conforming roughly with the wing-outline, which in *balli* is different from that of *braueri* through the upper angle of the wing being more prominent; whereas in *braueri* the curvature at this point is much more even, influencing that of the band itself. The light bluish "surround" to the black spot near the margin in area 2, and the other submarginal "rings" or partly lunula markings are, in general, rather less prominent in *balli* than in *braueri*; while the more proximal portion of the inner-marginal concavity is not nearly as noticeably lightened in the former taxon. The light submarginal marking, of modified shape, in area 7 is, in *balli*, less distinct or may often be barely apparent.

Underside.

As a whole close to that of *braueri*, with the most divergent characters being, sometimes, individually very close, or similar, to each other in specimens of either taxon. When the combined features have, however, been taken into account no examples of either taxon have been found to agree fully with one another on the underside. Characters which predominate in *balli* in comparison with the corresponding ones in *braueri* are noted hereunder.

In *balli* there is normally a more pronounced double (opposed) curvature of the transverse series of markings in the forewing and the sub-marginal white "rings" are less round in form, and generally narrower than in *braueri*. In the specimens examined, none (with an exception which is noted later) have shown the occasional rather extreme widening of the above spots which has *"Blencathra", Cambridge Avenue, St. Michael's Estate, Cape Town.

been present in *braueri*. In the hindwing the white sagittate markings forming a transverse series are, in *balli*, normally more clear-cut and sharper than in *braueri*, in which these markings quite often coalesce noticeably and produce a blurred effect.

Length of forewing: 16.5-17.5 mm. (the latter measurement, in holotype). An abnormally small specimen has a wing-measurement of only 14.5 mm.

Female.

As in the case of so many *Lepidochrysops* species the forewings are rather more rounded than are those of the male. There is much encroachment of black or blackish marking into the violaceous-blue areas of the upperside, and the latter are less strongly violaceous than in the male.

Upperside.

In the forewing a very broad costal border which becomes increasingly broad distally is confluent with the broad distal border, with the black marking extending down to vein 4 before the juncture with the distal border. The discocellular marking is much widened, being roughly quadrate, and is confluent with the costal border. The lowest component of a post-median series of three black markings, within the violaceous-blue area, occurs in area 1b and is decidedly elongated; that in 2 is smaller and approximately oval; and the one in 3 is smaller still and more round in form. The inner-marginal area below vein 1a is partly dark-scaled, solidly so near the wing-base and for a fair distance before the distal margin. There is a very fine white edging to the costal margin.

In the hindwing a very broad costal border extends down to vein 6 and is confluent with the distal border, which is even wider than in the male and with the pale blue to whitish rings therein larger and more prominent than in the male – and the black spot enclosed by the ring, in area 2, very conspicuous. The dark discocellular marking is well developed and is distinctly lunular in form. An irregularly elongated dark streak extends distad from the discocellular marking and about half-way through the adjacent violaceous-blue field, the outer portion of the streak representing one of the spots of the (incomplete) discal series. The lowest marking of the series is discernible (in the right-hand wing mainly, in the allotype) in area 1c and the uppermost one, which coalesces with the dark costal border, is apparent in area 5. Dark scaling which occurs over the veins is, in all wings, heavier than in the male.

Underside.

All wings as in the male.

Length of forewing: 17.25 mm. (allotype only).

The body and ancillary parts, in both sexes, closely resemble those of *braueri*. With respect to the head, the numerous densely-set hairs on the frons are predominantly black (sometimes almost entirely black) in *balli*; but, in all specimens of *braueri* which have been examined, a high proportion of the hairs have been light-coloured, although bordered at least partially, on each side, by black hairs.

It may be noted that in the case of certain other closely related *Lepidochrysops* species there is not necessarily a consistently marked difference in the underside characters. In a few allied species the undersides are almost identical.

♂ Holotype, SOUTH WESTERN CAPE PROVINCE: Kammanassie Mountains (at approx. 4,900 ft. above sea-level), 3.II.1979 (Dr. J. B. Ball). Dr. Ball has wished to present the male holotype to the Transvaal Museum.

♀ Allotype, S. W. CAPE PROVINCE: Kammanassie Mountains, 14.XI.1982 (E. L. Pringle): British Museum Reg. No. Rh. 18709

Paratype in author's collection : data as for holotype, one ♂.

Paratypes in Coll. Dr. J. B. Ball: as holotype, three ♂♂.

Paratype in Coll. British Museum (Nat. Hist.) : as holotype, one ♂; British Museum Reg. No. Rh. 18710.

Paratypes in Coll. V. L. and E. L. Pringle : data as for holotype, 12.XII.1981, three ♂♂ (V. L. Pringle); 14.XI.1982, one ♂ (E. L. Pringle).

In one male paratype, collected by Dr. Ball, the dark white-edged spots of the main transverse series on the forewing underside are, mostly, unusually elongated and nearly all the corresponding markings of the same series on the hindwing underside are also noticeably elongated, as is the dark spot in the cell. (This phenomenon does occur at times in many of the species of *Lepidochrysops*.)

One of the male paratypes which was caught by Mr. E. L. Pringle, on 14th November, 1982, was a very aberrant specimen. The forewing upperside black or blackish border averages as much as a full 3.25 mm. in width. The discocellular marking of the same wing is much larger than normal and there is a postmedian series of black markings of an elongated form in areas 1b - 5, with coalescence with the distal border in area 1b. In the hindwing the black discocellular marking is broadened, though considerably less so than in the forewing; and elongated marking, less prominent on the whole than in the forewing, occurs midway across the wing in areas 1c - 5, with that in 1c and 2 far less distinct than that in the other areas concerned. On the underside, part of the dark discal marking tends, perhaps, to be slightly more elongated than in the average specimen.

As regards the male genitalia, the *aedeagus* and the *valves* of one paratype were compared with those of a single example of *L. braueri* from the type-locality - the one of which these organs were figured, with the original description (*op. cit.*). The butterflies themselves were of virtually the same size, but both the *aedeagus* and the *valves* were distinctly smaller, in the case of *balli*. The *aedeagus* of *balli* had its main proximal portion of approximately twice the length of the distal portion, and as in *braueri* as regards these proportions themselves. In the case of the former species the dorsal margin of the lateral plates was markedly concave (with a downward dip) for a considerable distance before the small "step" preceding the rather acute extremity - as against an almost straight fall, dorsally, to the same point in *braueri*. (There was some slight pressure in the original mount.)

The proximal portion of the *aedeagus* was, in *balli*, relatively straight, and thickest at about one-third of the distance from its base; while the same portion in *braueri* was decidedly arched, and noticeably reduced in diameter for approximately half the distance from the base. The "lateral flanges" (using Cottrell's term) at the basal end of the *aedeagus* appeared to be very similar in each of the species concerned. It may be stated that the concavity, dorsally, in the lateral plates of the *aedeagus* of *balli* occurred less abruptly than in the case of *Lep. pringlei* Dickson (*Entomologist's Rec. J. Var.* 94, Nos. 11-12: 222-224 (1982)); and other differences, too, were present in the actual material compared.

In the *valve* of *balli* there was a small but definite decrease in width in a distal direction (the reverse occurring in the *valve* of *braueri* which was figured) and, to use Cottrell's term, a well-defined "callous" just before the hooked extremity (not present in the *valve* of *braueri*). It must, however, be noted

that inconsistencies do occur in the valves of many of the *Lepidochrysops* species, individually, and that the above differences in the valves of the taxa in question might be found not to be constant in character. Although it is realised that some of the other components of the male genitalia, not considered herein, may be of taxonomic value in certain species of *Lepidochrysops*, special attention has been drawn above to the *aedeagi* and the lateral plates in particular because of useful characters perhaps more frequently, being found therein.

Dr. Ball has commented on the species as follows:—

“This is a very restless and energetic Lycaenid which I have found very infrequently on numerous trips to the Kammanassie Mountain range.”

“It has been seen by myself only within approximately 1,500 ft. of the summits of the range. No females were observed and the very steep mountainsides combined with thick vegetation make capture of the insect very difficult.” (Specimens, including a female, were nevertheless found subsequently, by Messrs. V. L. and E. L. Pringle, at a height of about 4,000 ft. and thus further below the summit of these mountains (altitude about 6,540 feet above sea-level)).

Very grateful thanks are due to Mr. E. L. Pringle for his most generous presentation of the only female specimen known to date.

Finally, it should be stated that Professor C. B. Cottrell was apparently the first one to try the Kammanassie Mountains for butterflies, in December, 1969. Others who have followed in his steps have continued to increase our knowledge of the species of this remarkably productive range.

Description of the female of *Lepidochrysops pringlei* Dickson:
A final note.

When the male of this species was described by the present writer (*Entomologist's Rec. J. Var.* 94 (11-12) : 222-224 (1982) ; 95 (1-2):Pl. I, figs. 1,7 (1983)) the description of the female was left in abeyance until this sex became available. The situation was remedied when Mr. E. L. Pringle caught two females in the type-locality in November, 1982, both of them unfortunately imperfect but one in sufficiently good condition to serve satisfactorily as the neallotype female of this species. The description follows hereunder.

Lepidochrysops pringlei female.

Upperside.

The ground-colour of all wings is of a very rich, shiny violaceous-blue, of a decidedly more violaceous tone than in the male, but with this colouring restricted by the very broad distal and costal black borders. The general pattern is similar to that of females of *L. oreas oreas* Tite, 1964, which can vary in detail in individual specimens, particularly with respect to the degree of development of the black discal spotting of the forewing — this being rather small, in fact, in the representative of the present taxon. In this specimen, the black distal borders, especially in the hindwing, are broader than in many if not all examples of *oreas oreas*; while the postmedian sagittate marking, of a lighter violaceous-blue than the ground-colour, is particularly clear. The ground-colour itself is richer in tone than is usual in females of *oreas oreas*.

Underside.

All characters are much as in the male of *L. pringlei*. In the forewing the dark discal series is more remote from the following white, pointed marking than in *oreas oreas*, and in the hindwing the submarginal annular marking in areas 1c - 5 is more pointed proximally than in *oreas oreas* (the component of this series in area 1b, in *oreas oreas* itself, is however well pointed). If not specially mentioned in the original description, the above two characters apply pretty well to the male, also, of *L. pringlei*.

Length of forewing: 18.5 mm. (one specimen only).

Neallotype female, SOUTH WESTERN CAPE PROVINCE: Toverwater, 13.XI.1982 (E. L. Pringle).

A comparison with the nominate race, itself, of *L. oreas* has been considered sufficient for the present purpose.

The writer is exceedingly grateful to Mr. E. L. Pringle for the very kind gift of the hard-won female specimen of the present species.

Both sexes were encountered at a height of 4,860 ft. above sea-level, which is the altitude of the eastern extremity of the Groot Zwartbergen in this area.

Just before this paper was submitted for publication, Mr. E. L. Pringle informed the writer that he had caught more specimens of *Lepidochrysops balli* on the Kammanassie Mountains and that several of the males resembled *L. braueri* in the tone of the blue of the upperside. Some further investigation would seem desirable to endeavour to assess the significance of this fresh observation. It is known that occasional males of the two races of *L. oreas* do exhibit a lighter and more silvery-blue colouring than that of the normal, violaceous-blue, males of these taxa.

CYPHON HILARIS NYHOLM (COL., SCIRTIDAE) NEW TO SURREY.

— This scirtid was added to the British List formally by the late D. K. Kevan in 1963 (*Entomologist's mon. Mag.*, 98 (1962): 114-121) who pointed out that Nyholm had been aware of its presence in this country back in 1955. My only specimen was swept from heather at Horsell Common (TQ0060) on 29.viii.82 in one of the more boggy spots of the heath. At the time I was unsure of its identity but have since checked it with material at the British Museum, wherein I discovered two more from Surrey — one from Esher 18.vi.1865 and another from Wimbledon, 6.vii.1867 (both J. A. Power). Kevan (*loc. cit.*) gives only two southern localities, namely the New Forest and Charmouth.

I should like to point out that it is advisable to heed his cautionary note on the variability of the 'slightly sinuate hind margin of the thorax behind the posterior angles' on p.120 when using the provided key to distinguish this species from the closely allied *ochraceus* Stephens. My thanks go to the staff of the Coleoptera section, BM(NH) for facilities afforded. — D. A. PRANCE, 23 Brunswick Road, Kingston Hill, Kingston upon Thames, Surrey.